

2016 BMP Implementation Survey

Mississippi's BMP Implementation Monitoring Program

The Best Management Practices Implementation Monitoring Program was developed to provide a way to measure the voluntary use of BMPs in Mississippi. The Mississippi Forestry Commission conducts the <u>BMP Implementation Survey on a three-year cycle.</u>

Mississippi's Voluntary Silvicultural Best Management Practices Implementation Monitoring Program

2016 BMP Implementation Survey For Mississippi



Prepared by Mississippi Forestry Commission

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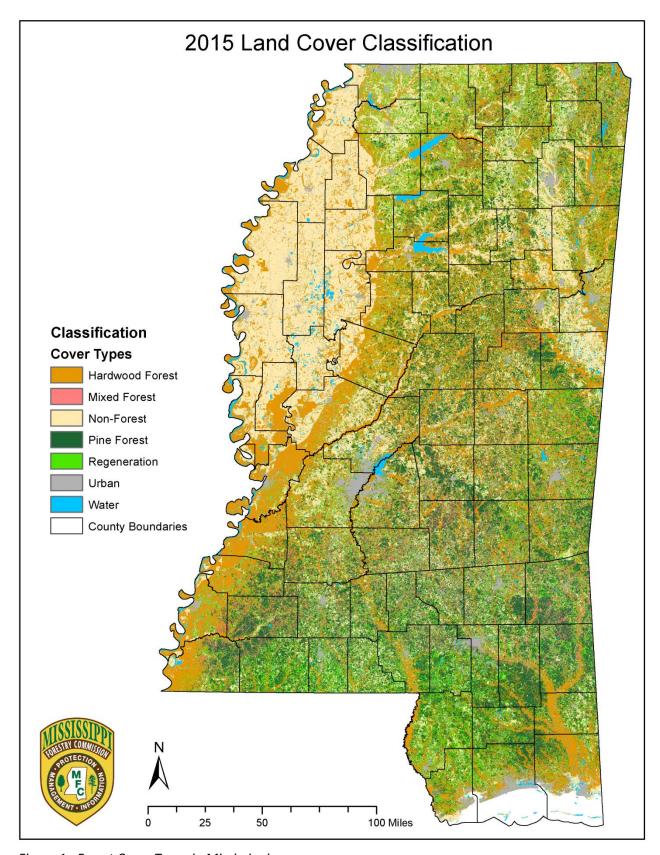


Figure 1: Forest Cover Types in Mississippi

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Executive Summary

In 2016, the Mississippi Forestry Commission (MFC) conducted a field survey of best management practices (BMPs) voluntarily implemented on forestland in Mississippi. This report presents the results of that survey.

The guidelines set forth in "Silvicultural Best Management Practices Implementation Monitoring: A Framework for State Forestry Agencies" were used to develop the 2016 BMP Implementation Survey for Mississippi.

A total of 253 sites in 69 counties located in 11 basins in Mississippi having recent silvicultural activity were randomly selected to evaluate the voluntary implementation of best management practices. The Mississippi Forestry Commission utilized its own personnel to conduct the survey.

The following criteria were applied in selecting sites to be included in the survey:

- Forest harvesting activities occurring within 24 months.
- Sites must be at least 10 acres in size.
- Sites were selected without regard to ownership.

The 2016 BMP Implementation Survey results for Mississippi revealed that 96 percent of best management practices applicable to the survey sites were implemented in accordance with the guidelines published in the handbook *Mississippi's BMP – Best Management Practices for Forestry in Mississippi.* Figure 2 shows the BMP categories evaluated during the survey and the implementation results for each category.

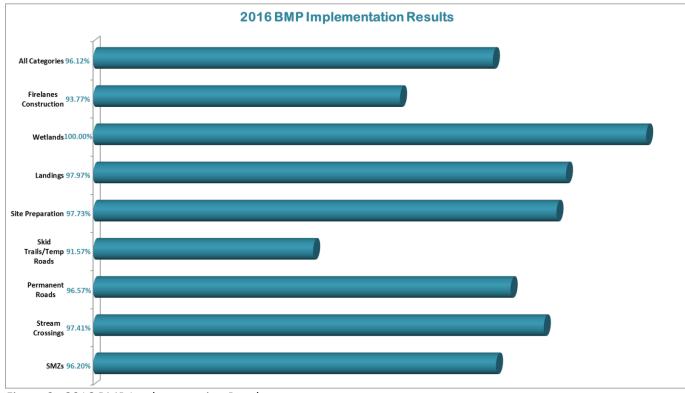


Figure 2: 2016 BMP Implementation Results

Introduction

Mississippi has nearly 20 million acres of forestland, covering two-thirds of the state's total land area. Forests make an important contribution to Mississippian's quality of life by providing jobs, forest products, livestock forage areas, wildlife habitat, scenic areas, recreational experiences, clean air, clean water, and many other social, economic, and health benefits.

The Clean Water Act of 1987 required that proper steps be taken to prevent water pollution. Mississippi's Silvicultural Best Management Practices (BMPs) were established as a result of the Clean Water Act of 1987. Best Management Practices are non-regulated, voluntary guidelines for silvicultural activities that, when properly applied will protect water quality from non-point source pollutants while maintaining site productivity. Non-point source pollution is defined in Section 319 of the Clean Water Act of 1987 as "pollution caused by diffuse sources that are not regulated as point sources and normally associated with agricultural, *silvicultural* [emphasis added], urban runoff, and runoff from construction activities, etc. Such pollution results in human-made or human-induced alteration of the chemical, physical, biological, and radiological integrity of the water."



Figure 3: Dunn's Falls in Lauderdale County

The Best Management Practices Implementation Monitoring Program was developed to provide a way to measure the

voluntary use of BMPs in Mississippi. The program began in 1988 when the Department of Environmental Quality requested that the Mississippi Forestry Commission coordinate the development of voluntary best management practices for forestry in Mississippi. The Mississippi Forestry Commission worked with the Mississippi Forestry Association to put together a group of individuals representing a cross section of the forestry community to develop the guidelines. This group included landowners, loggers, forest industry, professional foresters, and the Department of Environmental Quality. Suggestions and comments from other states were also considered in the development of Mississippi's silvicultural BMPs.

Since the BMP guidelines inception, the Mississippi Forestry Commission has used some form of inspection on public and private lands. Currently, MFC employees utilize the same BMP Monitoring Inspection Form used for this survey to make sure all harvests on public lands meet BMP standards. This form is also used by MFC employees to ensure that all requests for Forest Resource Development Program (FRDP) cost-sharing money meet the BMP standard. Most wood industries are now SFI (Sustainable Forestry Initiative) certified. Therefore, their foresters also have a vested interest in following these same BMP guidelines. This BMP Implementation Survey can be viewed as a random audit of BMP practices on these lands and more.

The BMP guidelines were approved by the Mississippi Department of Environmental Quality and the Environmental Protection Agency and in 1989, published in the handbook *Mississippi's BMPs – Best Management Practices for Forestry in Mississippi*. Prior to this edition in 2016, the handbook was revised in 1995, 2000, 2008, and 2013.

2016 BMP Implementation Survey Procedure

Sampling Method

The 2016 BMP Implementation Survey is a statewide survey designed to assess statewide BMP compliance and not individual basin BMP compliance. Therefore, all results contained in this report are statewide results only.

The survey design from the Statistical Guidebook for BMP Implementation Monitoring produced by the Southern Group of State Foresters was used to determine the number of sample sites to visit. Based on an estimated overall percentage of implementation from past surveys, the sample size needed would have been 144 sites. However, we felt that a sample size of 250 should be used in order to adequately represent forestry activity statewide and cover all basins.

The Southern Group of State Foresters, under the direction of the North Carolina Forest Service, has secured a grant from the US Forest Service to develop a new product called LandSatFACT. This new product can be used to automate the detection of timber harvests across the landscape by comparing satellite images over time. Satellite image data forms the basis for calculations like the Normalized Difference Vegetation Index (NDVI), which clearly highlights healthy green plants on a landscape. Comparing NDVI values, and other similar calculations, over time reveals changes in vegetation patterns.

The chosen period of time for this analysis was the growing season of 2015. A total of 3,321 sites were identified by LandSatFACT as having forest removal. These sites were then divided by county and calculated by the percentage of sites. The number of survey sites was determined by taking that county percentage out of the estimated 250 total survey sites. The primary survey sites were then randomly allocated within each county.

Believing that there would likely be instances where some forest removals were not silvicultural operations qualifying for BMP inspection, alternates were also assigned and randomly placed.

Eligible Survey Sites

Site selection criteria used for the 2016 survey were: (1) sites must have had some type of forest harvesting activity, either regeneration harvest or thinning, within a period of two years prior to the survey, (2) sites must be at least 10 acres in size, and (3) sites were selected without regard to ownership. The ownership of a site was determined after the site had been selected. This allowed for an unbiased selection and distribution of survey sites in regard to ownership.

Survey Site Evaluation

For each site surveyed by MFC Foresters, 73 values were collected on each of the 8 BMP categories. The BMP categories are as follows:

- Streamside Management Zone (SMZ)
- Stream Crossings
- Permanent Roads
- Skid Trails/Temporary (Secondary) roads
- Site Preparation Activities
- Landings
- Wetlands
- Fireline Construction

If a value within a category did not apply to the survey site, it was recorded as Not Applicable (N/A). All other practices were considered applicable to the site and were evaluated on whether or not they were

implemented as specified in Mississippi's BMP handbook. This method of evaluation allowed each BMP category and, ultimately, the overall BMP implementation program, to be evaluated and the results expressed as a percent of applicable BMPs implemented.

The presence of a significant risk to water quality was noted for each best management practice evaluated. The forester evaluating the site used the following standard to determine the presence of a significant risk to water quality: Significant risk to water quality exists, if during a normal rainfall, sediment is likely to be delivered to a permanent water body. The presence of a significant risk did not mean that water quality was impaired on the site.

All information recorded for each BMP was based on observations made at the time of the inspection. The evaluation process did not include any assumptions concerning future activities on the site.

2016 BMP Implementation Survey Results

The 2016 BMP Implementation Survey revealed that 96.12 percent of best management practices applicable to the survey were implemented. The Total Statewide compliance of the survey was determined to be 96% at the 95% confidence level.

A total of 253 sites having recent silvicultural activity were randomly selected to evaluate the voluntary implementation of best management practices. A compilation of all survey data collected is found in Table 1: BMP Monitoring Inspection Form – State Totals (see pages 18-21).

General Tract Information

Silvicultural Activity

A regeneration harvest had occurred on 221 sites (87.35%) of the 253 sites surveyed. The remaining 12.65 percent of the sites involved thinning operations. Of the sites that had received a regeneration harvest, 79 had been artificially regenerated.

Tract Summary

The sites ranged in size from 10 acres to over 161 acres. Figure 4 shows the distribution of survey sizes by tract size.

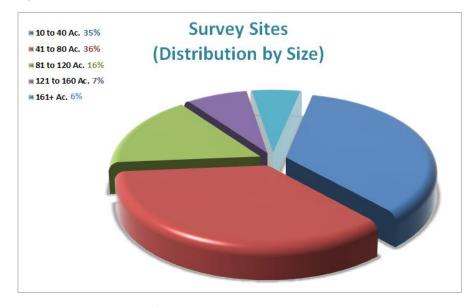


Figure 4: Distribution of survey sites by tract size.

Ownership Summary

The survey sites were distributed and selected without regard to ownership in order to ensure an unbiased sample. Ownership was determined after a site was located. Figure 5 shows the distribution of survey sites in regard to ownership classes.

The 253 survey sites were in the following four forest ownership groups:

```
Federal –
(9 survey sites, 3.56 percent of survey)

Forest Industry –
(63 survey sites, 24.90 percent of survey)

Private Nonindustrial Forest Landowner (PNIF)—
(168 survey sites, 66.40 percent of survey)

State/Public –
(13 Survey sites, 5.14 percent of survey)
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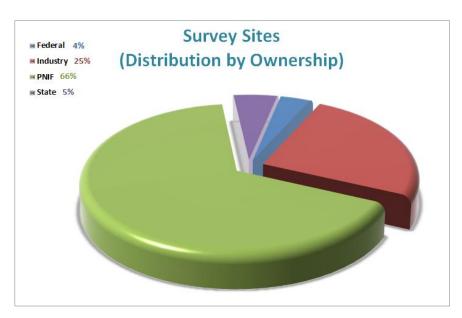


Figure 5: Survey Sites - Distribution by Ownership

Counties

The BMP survey sites were randomly distributed across the state based on the potential need for BMPs. Survey sites were located in 69 of the 82 Mississippi counties. See Table 2: BMP Survey Sites by County, page 22.

River Basins

For each site inspected for BMP monitoring, the river basin containing the site was identified. Survey sites were located in all 11 of Mississippi's river basins as delineated in the Mississippi Department of Environmental Quality's Basin Management Program. The river basins of Mississippi are shown below in Figure 6.

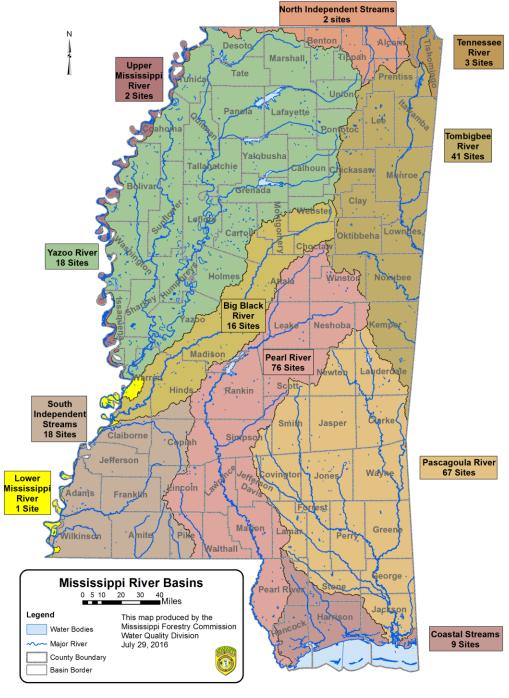


Figure 6: Mississippi River Basins

Survey Sites with Applicable BMPs by Categories

The number of survey sites on which BMP categories were applicable is shown in Figure 7. See Table 3: Applicable BMPs by Category, page 23.

The BMP categories Landings, Skid Trails/Temporary Roads and Permanent Roads were applicable on far more survey sites than other categories. The Landings and Skid Trails/Temporary Roads categories each had the next highest number of applicable sites surveyed at 253 (100%). The Permanent Roads category was the next highest with 232 sites (91.70%) that were applicable.

The three categories that fell in the middle of the applicable range were Streamside Management Zones, Stream Crossings, and Site Preparation. There were 169 sites (66.80%) in the Streamside Management Zone category that were applicable. The Stream Crossings category had 149 sites (58.89%) which were applicable, with 100 sites (39.53%) out of 253 total sites that had Site Preparation completed.

The two categories that had the least number of sites that applied were Wetlands and Firelane Construction. The Wetlands category only had 68 applicable sites (26.88%) while the Firelane Construction category only had 54 applicable sites (21.34%).

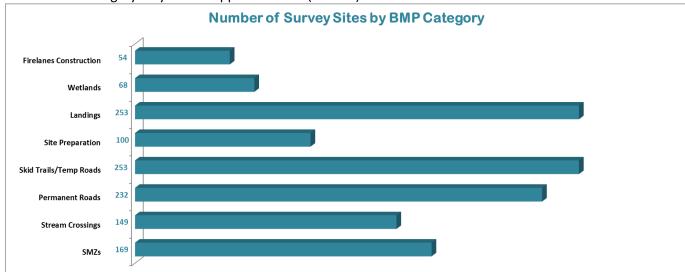


Figure 7: Number of Survey Sites by BMP category

BMP Implementation

Applicable BMPs were evaluated on whether or not they were implemented as specified in Mississippi's BMP handbook. Results showed that ninety-six percent of best management practices were implemented on survey sites where they were applicable.

Implementation results were also evaluated by BMP category. Figure 8 shows the implementation results for each BMP category. The number and percent of all applicable BMPs implemented for each category is presented in Table 3: Applicable BMPs by Category, page 23.

The lowest percentage of BMPs implemented was found in the Skid Trails/Temporary road category with 91.6% of the 1,222 applicable practices implemented as specified. Of the 321 practices in the Firelane Construction category, 93.77% were implemented as specified. The Streamside Management Zone category had 1,606 applicable practices with 96.20% implemented as specified.

Of the 2,475 applicable practices in the Permanent Roads category, 96.57% were implemented as specified. The Stream Crossings category had 656 applicable practices with 97.41% implemented as specified.

Applicable BMP practices in the Site Preparation category had the third highest percentage implemented as specified with 97.73% of the 749 applicable practices implemented according to specifications. Of the 1,233 applicable practices in the Landings category, 97.97% were implemented correctly. The only category to get a perfect score of 100% for the applicable practices being implemented as specified was the Wetlands category on 201 applicable practices.

For a listing of 2016 BMP Implementation Results by MFC District, see Table 5: Survey Sites Distribution by Ownership, page 24.

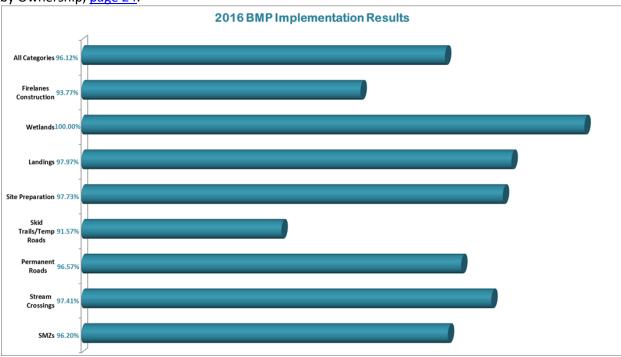


Figure 8: 2016 BMP Implementation Results

Significant Risk to Water Quality

Sites were evaluated for a significant risk to water quality each time a best management practice was determined to be applicable to the survey site. Of the 8,463 applicable BMPs evaluated, a significant risk to water quality was observed 7 times. These occurred on 4 of the 253 sites surveyed. A complete listing of significant risks by individual best management practice is found in Table 1: BMP Monitoring Inspection Form – State Totals (see pages 18-21). A summary of significant risk by BMP category is given in Table 4: BMP Categories with Significant Risks to Water Quality, page 23.

No significant risks to water quality were observed in relation to BMPs associated with half of the categories, including Stream Crossings, Site Preparation, Wetlands, and Firelane Construction. One significant risk was observed in relation to BMPs associated with Landings.

The highest significant risk to water quality was two risks observed in each of three categories. The Streamside Management Zones category had risks observed involving stream blockage and sedimentation. The Permanent Roads category risks involved the reshaping of the road and side ditches dumping into a stream. Both of the significant risks found in the Skid Trails/Temporary Roads category involved stabilization and a lack of water control structures such as waterbars and turnouts.

Comparison of 2003, 2007, 2010, 2013, & 2016 Survey

The 2016 survey results exceed all previous survey results in all categories except for Firelane Construction in 2013. Skid Trails/Temporary Roads remain the category with the lowest evaluation in all surveys. The category with the highest percentage improvement was Streamside Management Zones. It improved by 3 percent over the 2013 survey and 2 percent over the 2010 survey. Of particular importance is the finding for the Wetlands category. This is the first year that 100% compliance was found in any category. Figure 9 shows a comparison of all BMP surveys since 2003.

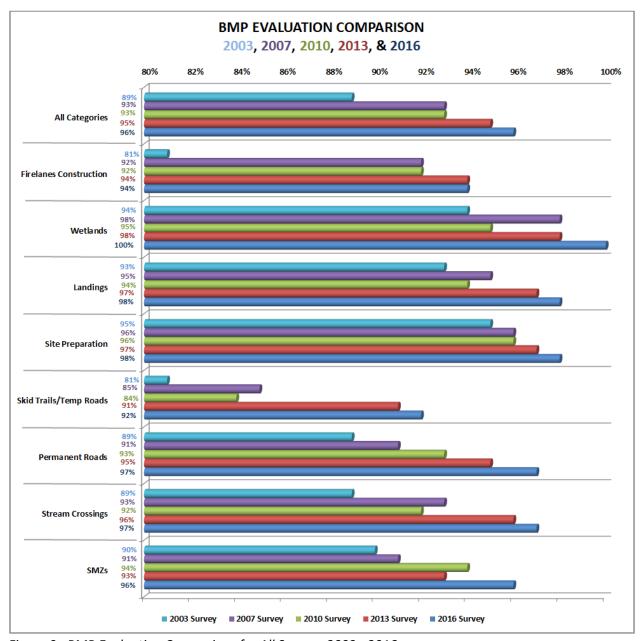


Figure 9: BMP Evaluation Comparison for All Surveys 2003 - 2016

Statistical Significance

A statistical analysis was completed following the survey. Figure 10 shows the statistical compliance of the survey. The total statewide compliance of BMP Implementation was determined to fall within 96% at the 95% confidence level. The metrics fell slightly lower for most of the individual categories. There were two categories that had slightly higher metrics, Landings at 97% and Wetlands at 100%. The two categories whose metrics fell significantly lower were Firelane Construction at 91% and Skid Trails/Temporary Roads at 89%.

Areas that need improvement, which are directly correlated to the statistical compliance discussed above, are all related to stabilization. Road stabilization on both Temporary Roads (survey question 6E) and Permanent Roads (survey question 5E) were between 84% and 89% compliant. Water bars on Temporary Roads (survey question 6D) and Firelanes (survey question 10C) were only 75% to 85% compliant.



Figure 10: Statistical Compliance

Conclusion

Our forests play an essential role in the protection of water quality. They absorb rainfall, filter pollutants and recharge underground water supplies. Forests produce much of the clean water we need for recreation and support of fish and wildlife habitats as well as the drinking water supply for millions of Americans.

Despite the tremendous contributions our forests and forestry make to water quality, forestry activities have the potential to adversely impact our water locally. Voluntary best management practices are utilized in Mississippi to address this potential and help ensure water quality is protected. Studies have shown that BMP efforts work when applied on a landowner's property.

The Mississippi Forestry Commission's 2016 BMP Implementation Survey for Mississippi was conducted to assess the implementation of the voluntary BMPs in the State. Steady progress has been made in the protection of our water resources as shown by the increased improvements in survey results over the years. Through continued education and training, as well as more diligent BMP implementation, the stabilization issues found in this survey can easily be remedied.

It is essential that the forestry community continue its efforts to protect water quality and monitor protection efforts. The Mississippi Forestry Commission, Southern Group of State Foresters and National Association of State Foresters are committed to protection of our forests and water through the use of routine assessments of protection measures implemented by the forestry community.



BEST MANAGEMENT PRACTICES FOR FORESTRY IN MISSISSIPPI

Appendix



Table 1: BMP Monitoring Inspection Form - State Totals

1. General Tract Information

1. General Tract	information		
Silvicultural Activity:	Tract Size (Acres):	Ownershi	ip Group:
Regeneration Cut 22	21 10-40 88 121-160	19 PNIF	168 Federal 9
Thinning 3	41-80 90 161 or mo	ore 15 State	13 Industry 63
Mississippi's River Ba	81-120 41 asins:		
Big Black 16	Coastal Streams 9 Yazoo River	18 Nor	rth Independent Streams 2
Pascagoula 67	Tombigbee 41 Pearl River	76 Ten	nessee River 3
Upper Mississippi 2	Lower Mississippi 1 South Indep	endent Streams 18	_
2. Site Characteri	stics		
Estimated Slope Present:	Predominant Soil Texture:	Erodibility Hazard:	Type of Stream Present:
0% - 5% 77	Clay 17 Sandy Loam 118	Low 93	Perennial 67
6% - 20% 128	Clay Loam 85 Sand 4	Medium 136	Intermittent 70
21% - 40% 35	Loam 6 Silty Soils 23	High 24	Ephemeral 52
40% or greater 13			N/A 64
40% of greater 13			N/A 04
Distance to Nearest	Evidence of Spills or Fuels Onsite:	Trash, Oil Cans, Hoses or Other Containers Left Onsite:	Has Tract Been
Permanent Water Body:		Other Containers Left Offsite:	Regenerated Artificially?
300 feet or less 72	Yes 1	Yes 11	Yes 79
301 - 800 feet 51	No 252	No 242	No 142
801 - 1600 feet 40			N/A 32
1,601 or greater 90			
3. Streamside M	lanagement Zone		
			N/A YES NO SIG. RISK
	ished according to BMP specifications ing within SMZ according to BMP specificati	ons	88 150 15 0 99 143 11 0
	nored (no chemicals, fertilizer, burning, log d		89 164 0 0
	ear of logging debris	,	88 155 10 0
E. SMZ free of roads and landings			85 162 6 0
F. Stream free of sediment due to silvicultural activity			87 163 3 1
G. Rutting through streams or drains avoidedH. Prescribed burning avoided			89 160 4 0
	ral flow of water avoided		125 127 1 0 86 157 10 1
J. Stream bank integ			88 164 1 0

Percent Compliance 96.20

Section Total

1,545 61

4. Stream Crossings

- A. Ditches that dump into streams avoided
- B. Streams crossing properly installed
- C. Number of stream crossing minimized
- D. Stream or drain crossing at right angle only
- E. Stream crossing stabilized during use

N/A	YES	NO	SIG. RISK
106	143	4	0
130	120	3	0
116	135	2	0
129	119	5	0
127	122	3	0

Section Total

639	17	0

Percent Compliance

97.41

5. Permanent Roads

- A. Road respect sensitive areas
- B. Rutting depth does not exceed six inches for more than fifty (50) feet
- C. Roads located where side drainage can be achieved
- D. Roads wide enough to achieve surface drying
- E. Roads reshaped and/or stabilized
- F. Roads meet grade specifications
- G. Roads are well drained with appropriate structures (bridges, culverts, etc.)
- H. Side ditches do not dump into streams
- I. Flat no grade road avoided
- J. Streambeds, rocky places, and steep slopes avoided
- K. Potential problem soils avoided

N/A	YES	NO	SIG. RISK
28	224	1	0
21	225	7	0
22	228	3	0
22	227	4	0
24	204	25	1
25	221	7	0
39	206	8	0
37	209	7	1
26	209	18	0
38	212	3	0
26	225	2	0

2,390 85

Section Total

Percent Compliance

96.57

6. Skid Trails/ Temporary (Secondary) Roads

- A. Sensitive areas respected
- B. Majority of skid grades (steepness) below fifteen percent
- C. Rutting does not exceed six inches for more that fifty feet
- D. Water bars, turnouts, and other water control structures present
- E. Roads and skid trails are stabilized

N/A	YES	NO	SIG. RISK
11	238	4	0
6	239	8	0
1	235	17	0
25	184	44	1
0	223	30	1

Section Total

1,119	103	2

Percent Compliance

91.60

7. Site Preparation

_	
Α.	Sensitive areas respected
м.	Selisitive aleas respected

- B. Contour followed
- C. SMZ integrity horned (no chemical, fertilizer, burning, log decks) within SMZ
- D. Soil disturbance kept to a minimum
- E. Excessive soil compaction avoided
- F. Does it appear that chemicals were used to label specifications
- G. Disturbance on slope minimized
- H. Water diverted from site prep area to vegetated surface
- I. Extremely hot burns avoided

N/A	YES	NO	SIG. RISK
161	92	0	0
173	80	0	0
172	81	0	0
155	91	6	0
155	95	2	0
186	64	2	0
162	87	4	0
165	85	3	0
196	57	0	0

Section Total

732 17 0

Percent Compliance

97.73

8. Landings

- A. Location outside of SMZ
- B. Well-drained location
- C. Number and size minimized
- D. Sensitive areas respected
- E. Restored/ stabilized

N/A	YES	NO	SIG. RISK
20	233	0	0
0	249	3	0
0	251	2	0
10	243	0	0
1	232	20	1

Section Total

1,208 25 1

Percent Compliance

97.97

9. Wetlands (Wetlands BMPs are Mandatory Practices)

- A. Hydrology of site unaltered
- B. Roads, drainage structures applied properly
- C. Mandatory BMPs followed

N/A	YES	NO	SIG. RISK
185	68	0	0
187	66	0	0
186	67	0	0

Section Total

201 0 0

Percent Compliance

100.00

10. Fireline Construction

- A. Fireline erosion controlled
- B. Majority of fireline constructed around slopes or grade of less than ten (10) percent
- C. Water bars, turnouts, and other water control structures properlly installed
- D. Diversion ditches not constructed at the head of a drain
- E. Firelines not constructed down the slope of natural gully
- F. SMZs left between the fireline and streams
- G. Avoid constructing firelines into an SMZ

N/A	YES	NO	SIG. RISK
207	43	3	0
208	43	2	0
199	46	8	0
198	52	3	0
208	44	1	0
216	35	2	0
214	38	1	0

Section Total

301	20	0

Percent Compliance 93.77

11. Follow Up Questions

- A. Was activity supervised by a professional Forester?
- B. Was Landowner familiar with BMP handbook
- C. Was Logger familiar with BMPs?
- D. Were BMPs incuded in contract?
- E. Has Logger completed Logger educational training courses?
- F. Are recommendations planned for Landowner, if needed?

N/A	YES	NO
111	129	13
124	116	13
115	135	3
134	110	9
133	116	4
142	90	20

Section Total

696 62

Percent Compliance 91.82

Statewide Compliance Percentage

96.12

Table 2: BMP 2016 Monitoring Sites by County

		-	Survey Sites	County	Survey Sites
Adams	1	Itawamba	5	Pike	3
Alcorn	1	Jackson	2	Pontotoc	2
Amite	6	Jasper	5	Prentiss	2
Attala	7	Jefferson Davis	6	Quitman	0
Benton	0	Jefferson	2	Rankin	8
Bolivar	0	Jones	6	Scott	5
Calhoun	2	Kemper	10	Sharkey	0
Carroll	2	Lafayette	1	Simpson	5
Chickasaw	2	Lamar	5	Smith	4
Choctaw	4	Lauderdale	4	Stone	5
Claiborne	1	Lawrence	4	Sunflower	0
Clarke	4	Leake	7	Tallahatchie	1
Clay	2	Lee	0	Tate	0
Coahoma	2	Leflore	0	Tippah	1
Copiah	8	Lincoln	5	Tishomingo	4
Covington	7	Lowndes	4	Tunica	0
DeSoto	1	Madison	4	Union	0
Forrest	3	Marion	5	Walthall	4
Franklin	3	Marshall	0	Warren	1
George	4	Monroe	5	Washington	0
Greene	7	Montgomery	2	Wayne	5
Grenada	2	Neshoba	5	Webster	2
Hancock	3	Newton	5	Wilkinson	3
Harrison	4	Noxubee	6	Winston	2
Hinds	3	Oktibbeha	3	Yalobusha	1
Holmes	2	Panola	1	Yazoo	1
Humphreys	0	Pearl River	6		
Issaquena	1	Perry	4	Total Plots	253

Table 3: Applicable BMPs Implemented By Category

BMP Category	Number of	Total Applicable	BMPs Implemented	
	Survey Sites	Practices	Number	Percent
Streamside Management Zones	169	1,606	1,545	96.20
Stream Crossing	149	656	639	97.41
Permanent Roads	232	2,475	2,390	96.57
Skid Trails/Temporary Roads	253	1,222	1,119	91.57
Site Preparation	100	749	732	97.73
Landings	253	1,233	1,208	97.97
Wetlands	68	201	201	100.00
Fireline Construction	54	321	301	93.77
State Totals		8,463	8,135	96.12

Table 4: BMP Categories with Significant Risks to Water Quality

BMP Category	Number	Percent
Streamside Management Zones	2	28.57
Stream Crossing	0	0.00
Permanent Roads	2	28.57
Skid Trails/Temporary Roads	2	28.57
Site Preparation	0	0.00
Landings	1	14.29
Wetlands	0	0.00
Fireline Construction	0	0.00
State Totals	7	100.00

Table 5: 2016 BMP Evaluations by Category for Each MFC District

BMP Category	Capital	ECD	NED	NWD	SCD	SED	SWD
Streamside Management Zones	96%	98%	95%	100%	92%	98%	95%
Stream Crossings	93%	98%	95%	93%	98%	98%	99%
Permanent Roads	94%	97%	99%	94%	97%	98%	98%
Skid Trails/ Temp Roads	90%	93%	93%	75%	90%	92%	98%
Site Preparation	97%	98%	100%	100%	97%	98%	99%
Landings	97%	98%	100%	97%	96%	100%	100%
Wetlands	100%	100%	N/A	100%	100%	100%	100%
Firelane Construction	78%	97%	100%	100%	86%	97%	100%
All Categories	93%	97%	97%	95%	95%	98%	99%

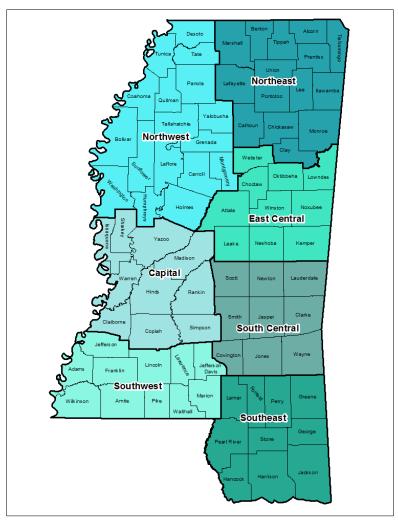


Figure 10: Map of MFC Districts



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